Staple maize price inflation potentially back at double figures in 2019 - 19 December 2018

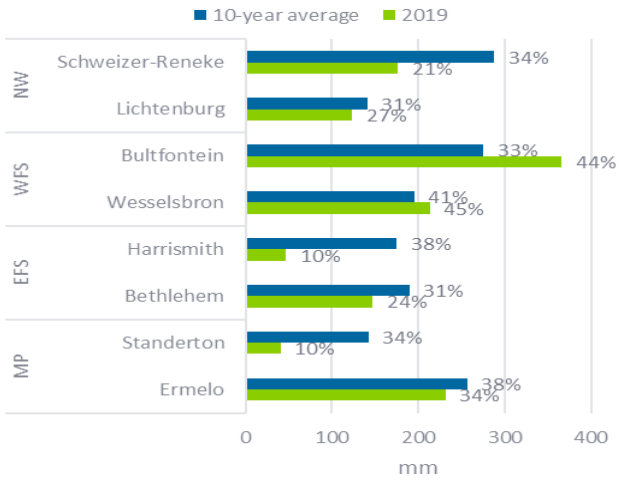
Given concerns regarding the impact of El Niño and the general lack of rainfall in many key maize production regions, futures prices have spiralled over the past week. This raises concerns about staple maize inflation, as well as the financial position of many producers, especially in the western production regions that have experienced multiple droughts over the past five years.

According to the seasonal climate watch published by the South African Weather Service, El Niño-Southern Oscillation (ENSO) was in a neutral phase early November with most models indicating a strong strengthening towards an El Niño phase in the early summer season[2]. This strengthening however, was not expected to have an influence on South Africa during the first half of summer (El Niño episodes are associated with hotter and drier summer seasons), with an expectation of sufficient but inconsistent rain. During the early summer (Nov-Dec-Jan), above-normal rainfall conditions were expected for parts of the summer rainfall areas, while below-normal was expected for the summer rainfall areas during mid-summer (Dec-Jan-Feb) and for the far north-eastern parts during late-summer (Jan-Feb-Mar).

To provide some information on how the season is unfolding, BFAP evaluated rainfall and planting progress in a number of key districts. Based on TRMM satellite rainfall data[1], Figure 1 compares the rainfall recorded between 1 October and 10 December 2018 to the 10-year average rainfall between 1 Oct and 10 Dec; the shares indicate 1 Oct to 10 Dec rainfall as a fraction of long term average season rainfall (October – March). It is clear that the eastern parts of the summer production region have underperformed with respect to rainfall to date: in Mpumalanga, Standerton has received less than 50mm rain in the current season representing only 10% of the long term total season rainfall. In Harrismith (eastern Free State), a similar trend was observed: 47mm has been recorded between 1 October and 10 December - only 10% of the 10-year average seasonal rainfall. These are the regions where the ideal planting window closes very quickly towards the end of November and Grain SA estimates that approximately 95% of the intended maize has been planted. The lack of follow-up rain is already affecting the potential size of the crop. In the western parts of the country, indications are that as little as 5% of the intended maize has been planted. Rainfall is extremely "spotty" with areas like Schweizer-Reneke receiving way below normal rainfall and the Bultfontein area receiving some early rains but very little follow up.

While the initial expectation pointed to "above-normal" early summer (Nov-Oct-Dec) rainfall, Figure 1 illustrates that below-normal rainfall realised in large parts of the summer production region. Furthermore, the data to date supports the expected higher frequency and longer duration of dry spells (periods without rain) during the 2018/2019 summer season. Irregular and unevenly distributed rainfall will significantly influence district-specific production conditions for this season.

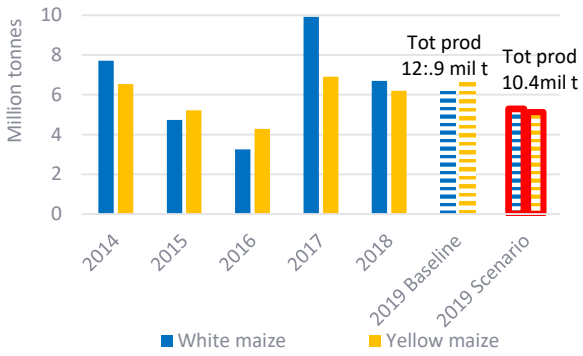
Figure 1: Early season rainfall (1 Oct -10 Dec) comparison



BFAP's Baseline for the 2018/19 season projected a total white and yellow maize crop of 12.9 million tons, taking the intentions of the Crop Estimates Committee into consideration. Based on the latest rainfall statistics, the BFAP model is projecting an alternative scenario of a total maize crop of 10.4 million tons, with 2019 white maize prices increasing year-on-year by 24% and consequently maize meal prices by 12% due to much lower stock levels. This scenario was simulated taking into consideration the latest rainfall forecasts for December. If this forecast does not materialise, the outlook for the maize crop will be more bearish.

Figure 2: South African maize production

The maize market is extremely volatile, with prospects changing by the day. The production outlook can quickly turn more positive



if wide-spread rains are received. This will halt the damage to the crop in the East and get planters into the field in the West. Just the past season, SA farmers illustrated their planting capacity. When rains finally came at the end of December, the West literally filled all the intended hectares within a week, running high-tech machines day and night. Consequently, SA managed to produce a surplus crop of 12.9 million tons that boosted stock levels to well over 3 million tons. Weather-wise, the next three weeks will be the most critical period for staple food inflation for the next year.

[1] Goddard Earth Sciences, (2018, December 10). Tropical Rainfall Measurement Mission (3B42)

[2] South African Weather Services. (2018). Season Climate Watch – November 2018 to March 2019. Pretoria: South Africa Weather Services.